Via e-mail vy.bui@uspto.gov

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Michael Hogendijk, et al.

Application No.: 10/772,764

Confirmation No.: 5704

Filed: 4 February 2004

Title: Delivery Catheter For A Ribbon-Type

**Prosthesis And Methods Of Use** 

Group Art Unit: 3773

Examiner: Vy Q. Bui

**CUSTOMER NUMBER: 22470** 

## PROPOSED AMENDED CLAIMS

Sir:

The following Proposed Amended Claims are provided response to a telephone interview with Examiner Bui on 15 and 17 July 2009.

1. (Currently amended) A catheter for delivering a vascular prosthesis within a body vessel, the vascular prosthesis having a distal section and a proximal section, the catheter comprising: an inner member comprising:

an elongated member having distal and proximal ends; and

a radially expandable balloon attached to the elongated member adjacent to the distal end, the balloon having a radially expandable length;

a sheath <u>slidably slideably</u> disposed over at least a portion of the inner member to restrain the vascular prosthesis against the elongated member during transluminal insertion of the catheter;

the radially expandable balloon comprising a non-radially expandable proximal shoulder; the non-radially expandable proximal shoulder comprising means for engaging the distal section of the vascular prosthesis to prevent axial translation of the vascular prosthesis during proximal retraction of the sheath;

the means for engaging comprising means for enhancing frictional engagement with the distal section of the vascular prosthesis; and

the means for engaging affixed to the inner member at a position being proximal of the whole radially expandable length of the balloon.

- 2. (Currently amended) The catheter of claim 1, wherein the means for engaging enhancing frictional engagement comprises a polymer layer that has been treated to enhance frictional engagement with the distal section of the vascular prosthesis.
  - 3. (Canceled) The catheter of claim 2, wherein: the radially expandable balloon comprises a non-radially expandable proximal shoulder; and the proximal shoulder comprises the polymer layer.
- 4. (Currently amended) The catheter of claim 1, wherein the means for <u>engaging enhancing</u> <u>frictional engagement</u> comprises raised features that interengage the distal section of the vascular prosthesis.
  - 5. (Canceled) The catheter of claim 4, wherein: the radially expandable balloon comprises a non-radially expandable proximal shoulder; and the raised features are formed on [[a ]]the proximal shoulder.
- 6. (Previously presented) The catheter of claim 4, wherein the raised features are chosen from the group consisting of ribs, bumps, ridges, grooves, notches and selectively inflatable sections.
- 7. (Original) The catheter of claim 1, wherein the balloon is configured to engage a wall of the body vessel during deployment of the distal section of the vascular prosthesis to prevent axial displacement of the catheter relative to the body vessel.
- 8. (Original) The catheter of claim 1, wherein the balloon is configured to perform angioplasty of a stenosis disposed within the body vessel.

- 9. (Original) The catheter of claim 1, further comprising at least one radio-opaque marker disposed on the elongated member and a radio-opaque marker disposed adjacent to a distal end of the sheath.
- 10. (Currently amended) The catheter of claim 1, wherein the elongated member further comprises an atraumatic tip disposed on the distal end and a lumen extending between the distal and proximal ends, the lumen dimensioned to slidably slideably receive a guide wire.
- 11. (Currently amended) A catheter for delivering a vascular prosthesis within a body vessel, the vascular prosthesis having a distal section and a proximal section, the catheter comprising: an inner member comprising:

an elongated member having distal and proximal ends; and
a balloon attached to the elongated member adjacent to the distal end;
the radially expandable balloon comprising a non-radially expandable proximal

a sheath <u>slidably</u> disposed over at least a portion of the inner member to restrain the vascular prosthesis against the elongated member during transluminal insertion of the catheter;

a non-radially expandable polymer layer affixed directly to the elongated member at a position-the non-radially expandable proximal shoulder of the balloon, the polymer layer comprising means for engaging the distal section of the vascular prosthesis to enhance and enhancing the grip of the polymer layer to the vascular prosthesis to help prevent axial translation of the vascular prosthesis during proximal retraction of the sheath.

- 12. (Canceled) The catheter of claim 11, wherein the balloon comprises a proximal shoulder, the proximal shoulder comprising the polymer layer.
- 13. (Original) The catheter of claim 11, wherein the polymer layer defines raised features that interengage the distal section of the vascular prosthesis.

shoulder;

Application No. 10/772,764

Attorney Docket No. NOCO 1004-1 (NVS -1040)

14. (Original) The catheter of claim 11, wherein the balloon is configured to engage a wall of the body vessel during deployment of the distal section of the vascular prosthesis to prevent axial displacement of the catheter relative to the body vessel.

15. (Original) The catheter of claim 11, wherein the balloon is configured to perform angioplasty of a stenosis disposed within the body vessel.

16. (Original) The catheter of claim 11, further comprising at least one radio-opaque marker disposed on the elongated member and a radio-opaque marker disposed adjacent to a distal end of the sheath.

17-20. (Canceled)

///

Respectfully submitted,

Dated 17 July 2009

James F. Hann, Reg. No. 29,719

HAYNES BEFFEL & WOLFELD LLP P.O. Box 366 Half Moon Bay, California 94019

Phone: 650-712-0340 Fax: 650-712-0263